
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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CHROMIUM IN SEPTEMBER 1996

Chromite consumption increased by 22% in September 1996 compared with the previous month's revised data, according to the U.S. Geological Survey. Net production of chromium ferroalloys and metal in September decreased 32% compared with data for August, and consumption of chromium ferroalloys and metal in September increased slightly compared with revised data for August. Chromite stocks increased 5% over the same period. At the September rate of consumption, chromium stocks represented 13 months of domestic supply. Chromium ferroalloys and metals stocks decreased 7% compared with revised data for August. At the September rate of consumption, chromium ferroalloys and metal stocks represented 1.1 months of domestic supply.

Included in this Mineral Industry Surveys are: U.S. consumption and stocks of chromite; U.S. net production, net shipments, and stocks of chromium materials; U.S. consumption by end use and consumer stocks of chromium ferroalloys and metal for September; U.S. Government inventory; and foreign trade for August.

Update

The Defense National Stockpile Center (DNSC) reported no interest in the purchase of chemical or refractory grade chromite

ore in October. DNSC offers chromite ore for sale on the third Tuesday of each month.

For further information, contact: Defense National Stockpile Center, 8725 John J. Kingman Road, Suite 3339, Fort Belvoir, VA 22060-6223. Persons may obtain more information from Mr. Peter Roman at (703) 767-6490.

The International Chromium Development Association (ICDA) has prepared a document entitled *Chromium Industry Directory*, about 400 pages in length, and comprised of sections on chromite ore, ferrochromium, chromium metal, chromium chemicals, and chromium commodity traders. The directory profiles over 100 companies including addresses, telephone and fax numbers, products, chemical specifications, quality standards achieved, and key contact names within the company for all companies profiled. The directory may be purchased directly from the ICDA for FF800 (approximately US\$150). Contact ICDA by phone at 33 1 40 76 06 89; by fax at 33 1 40 76 06 87; or by mail at:

The International Chromium Development Association
45 Rue De Lisbonne
75008 Paris, France

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS 1/

(Metric tons, gross weight unless otherwise noted)

	1995	1996			
	Year total	July	Aug.	Sept.	Jan. - Sept.
Production:					
Chromium ferroalloys and metal: 2/					
Net production:					
Gross weight	72,500	880	1,180	793	35,000
Chromium content	49,500	646	904	572	24,700
Net shipments	72,100	1,640	1,800	(45)	36,000
Stainless steel production 3/	2,030,000	NA	NA	NA	NA
Components of U.S. supply:					
Stainless steel scrap receipts	663,000	51,700	38,300	42,200	437,000
Imports for consumption					
Chromite ore	253,000	4,580	48,100	NA	155,000 4/
Chromium ferroalloys 5/	495,000	31,300	38,900	NA	331,000 4/
Chromium metals 6/	7,040	451	606	NA	5,880 4/
Stainless steel	NA	NA	NA	NA	NA
Stainless steel scrap	43	3	4	NA	33 4/
Distribution of U.S. supply:					
Consumption:					
Chromite ore	356,000 7/	15,700	18,300 r/	14,300	226,000
Chromium ferroalloys & metals	283,000	23,300	19,400 r/	19,400	206,000
Exports:					
Chromite ore	17,800	1,920	1,060	NA	65,000 4/
Chromium ferroalloys	9,360	1,320	676	NA	6,130 4/
Chromium metals	714	214	63	NA	915 4/
Stainless steel	NA	NA	NA	NA	NA
Stainless steel scrap	368	35	29	NA	197 4/
Stocks at end of period:					
Industry:					
Chromite ore:					
Chemical and metallurgical	194,000	154,000	174,000	183,000	XX
Refractory	10,900	8,080	8,100 r/	8,010	XX
Total	205,000	162,000	182,000	191,000	XX
Chromium ferroalloys and metal:					
Producer	8,430	7,240	6,620	7,460	XX
Consumer	10,700	23,900	16,200	13,700	XX
Government stockpile:					
Chromite ore	1,320,000	1,200,000	1,200,000	1,190,000	XX
Chromium ferroalloys	1,070,000	1,070,000	1,070,000	1,070,000	XX
Chromium metals	7,690	7,690	7,690	7,720	XX

r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes low- and high-carbon ferrochromium, chromium concentrates, ferrochromium, chromium metal, and other miscellaneous alloys.

3/ Data on stainless steel production from American Iron and Steel Institute, quarterly production of stainless and heat resisting raw steel.

4/ Includes data for January through August; September not available at time of publication.

5/ Includes high-, medium-, and low- ferrochromium and ferrochromium silicon.

6/ Includes waste and scrap and other.

7/ Includes withheld data for February through December.

TABLE 2
U.S. CONSUMPTION, BY END USE, AND CONSUMER STOCKS OF
CHROMIUM FERROALLOYS AND METAL IN SEPTEMBER 1996 1/

(Metric tons, gross weight unless otherwise noted)

End use	Ferrochromium			Other	Total	Jan. through Sept. total 2/
	Low-carbon	Medium-and high-carbon	Ferro-chromium silicon			
Steel:						
Carbon	312	325	20	4	660	5,560
Stainless and heat resisting	502	11,700	2,230	W	14,400	147,000
Full alloy	301	1,670	79	4	2,060	20,000
High-strength low-alloy and electric	114	165	522	--	801	7,270
Tool	W	304	--	W	304	2,480
Cast irons	W	130	W	W	130	1,200
Superalloys	168	368	--	221	757	7,290
Alloys:						
Welding materials 3/	--	2	--	2	4	25
Other alloys 4/	30	W	--	48	78	553
Miscellaneous and unspecified	208	(5/)	(5/)	38	246	14,700
Total: 6/ gross weight	1,640	14,600	2,860	317 7/	19,400	XX
Chromium content	1,040	8,880	1,030	276	11,200	XX
Stocks, Sept. 30, 1996	1,430	10,700	1,370	239 8/	13,700	XX
Jan. through Sept.: 2/						
Total	14,600	154,000	34,200	3,220 9/	XX	206,000
Chromium content	9,630	90,100	12,000	2,890	XX	115,000

W Withheld to avoid disclosing company proprietary data; included in "Miscellaneous and unspecified." XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes revised data from previous months.

3/ Includes structural and hard-facing materials.

4/ Includes cutting materials and magnetic, aluminum, copper, nickel, and other alloys.

5/ Withheld to avoid disclosing company proprietary data.

6/ Includes estimates.

7/ Includes 236 tons of chromium metal.

8/ Includes 166 tons of chromium metal.

9/ Includes 2,550 tons of chromium metal.

TABLE 3
U.S. GOVERNMENT STOCKPILE INVENTORY 1/ OF CHROMIUM MATERIALS 2/

(Metric tons)

Period	Chromite ore			Chromium ferroalloys			Chromium metal	
	Chemical	Metal-lurgical	Refractory	High-carbon ferro-chromium	Low-carbon ferro-chromium	Ferro-chromium silicon	Alumino-thermic	Electrolytic
1995:								
September	220,000	817,000	333,000	738,000	283,000	52,900	2,670	5,020
October	220,000	792,000	333,000	738,000	283,000	52,900	2,670	5,020
November	220,000	792,000	333,000	738,000	283,000	52,900	2,670	5,020
December	220,000	773,000	328,000	738,000	283,000	52,900	2,670	5,020
1996:								
January	220,000	750,000	328,000	738,000	283,000	52,900	2,670	5,020
February	220,000	739,000	328,000	738,000	283,000	52,900	2,670	5,020
March	220,000	722,000	328,000	738,000	283,000	52,900	2,670	5,020
April	220,000	717,000	328,000	738,000	283,000	52,900	2,670	5,020
May	220,000	694,000	328,000	738,000	283,000	52,900	2,670	5,020
June	220,000	658,000	327,000	738,000	283,000	52,900	2,670	5,020
July	220,000	655,000	322,000	738,000	283,000	52,900	2,670	5,020
August	220,000	655,000	322,000	738,000	283,000	52,900	2,670	5,020
September	220,000	647,000	322,000	734,000	283,000	52,700	2,670	5,050

1/ Includes specification and non-specification grade materials and materials set aside for disposal but not yet shipped.

2/ Data are rounded to three significant digits.

Source: Defense National Stockpile Center.

TABLE 4
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS AND METAL 1/

Period	Chromite ore		Chromium ferroalloys 2/			Chromium metal 3/	
	Gross weight (metric tons)	Value (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value (thousands)	Gross weight (metric tons)	Value (thousands)
1995:							
August	1,100	\$213	685	403	\$1,070	26	\$329
September	1,350	294	876	530	1,240	61	652
October	1,140	228	923	560	1,270	42	616
November	1,330	425	591	353	855	48	424
December	1,420	205	528	289	639	157	1,520
Total	17,800	3,430	9,360	5,540	12,500	714	7,820
1996:							
January	1,740	427	885	519	1,120	86	1,000
February	1,700	407	887	536	1,230	44	618
March	1,840	484	669	399	894	124	1,450
April	17,100 4/	2,280 4/	734	444	843	165	1,530
May	1,730	1,160	472	288	597	76	863
June	37,900 4/	4,270 4/	490	291	583	143	1,110
July	1,920	568	1,320	797	1,640	214	1,820
August	1,060	564	676	411	694	63	717
Total	65,000	10,200	6,130	3,690	7,600	915	9,110

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes low-, medium-, and high-carbon ferrochromium, and ferrochromium-silicon.

3/ Includes wrought and unwrought and waste and scrap.

4/ Data has been verified as correct by the Bureau of the Census.

Source: Bureau of the Census.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE,
FERROCHROMIUM, AND CHROMIUM METAL 1/

(Metric tons)

	1995	1996			
	Jan. - Dec.	June	July	August	Jan. - Aug.
Chromite ore:					
Not more than 40% chromic oxide:					
Gross weight	11,600	5,520	38	--	8,030
Chromic oxide content	4,120	1,820	15	--	2,650
More than 40% but less than 46% chromic oxide:					
Gross weight	14,800	--	4,540	--	19,600
Chromic oxide content	6,110	--	1,850	--	8,420
46% or more chromic oxide:					
Gross weight	226,000	10,300	--	43,100	127,000
Chromic oxide content	109,000	4,850	--	19,900	59,300
Total, all grades:					
Gross weight	253,000	15,800	4,580	43,100	155,000
Chromic oxide content	199,000	6,670	1,870	19,900	70,400
Ferrochromium:					
Low-carbon: 2/					
Gross weight	65,800	9,030	4,070	4,880	48,000
Chromium content	42,800	5,740	2,440	3,230	29,900
Medium-carbon: 3/					
Gross weight	7,570	--	--	--	36
Chromium content	4,930	--	--	--	23
High-carbon: 4/					
Gross weight	422,000	16,800	27,200	34,000	283,000
Chromium content	254,000	10,100	16,700	18,100	163,000
Total, all grades					
Gross weight	495,000	25,800	31,300	38,900	331,000
Chromium content	301,000	15,900	19,100	21,400	193,000
Chromium metal:					
Other than waste and scrap	6,930	631	451	606	5,850
Waste and scrap	109	(5/)	--	--	34
Total, all grades	7,040	631	451	606	5,880

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Ferrochromium containing not more than 3% carbon.

3/ Ferrochromium containing more than 3% carbon but not more than 4% carbon.

4/ Ferrochromium containing more than 4% carbon.

5/ Less than 1/2 unit.

Source: Bureau of the Census

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE IN AUGUST 1996,
BY GRADE AND BY COUNTRY 1/

Country	August			January - August 2/		
	Gross weight (metric tons)	Cr ₂ O ₃ (metric tons)	Value 3/ (thousands)	Gross weight (metric tons)	Cr ₂ O ₃ (metric tons)	Value 3/ (thousands)
Not more than 40% chromic oxide:						
Canada	--	--	--	20	8	\$3
Philippines	--	--	--	7,940	2,620	1,060
Venezuela	--	--	--	46	18	16
Zimbabwe	--	--	--	23	9	3
Total	--	--	--	8,030	2,650	1,080
More than 40% but less than 46% chromic oxide:						
South Africa	--	--	--	19,700	8,420	1,970
46% or more chromic oxide:						
South Africa	43,100	19,900	\$3,840	127,000	59,300	11,300
Total, all grades:						
Canada	--	--	--	20	8	3
Philippines	--	--	--	7,940	2,620	1,060
South Africa	43,100	19,900	3,840	147,000	67,700	13,300
Venezuela	--	--	--	46	18	16
Zimbabwe	--	--	--	23	9	3
Total	43,100	19,900	3,840	155,000	70,400	14,400

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes revised data from previous months.

3/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

Source: Bureau of the Census.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN AUGUST 1996,
BY GRADE AND BY COUNTRY 1/

Country	August			January - August		
	Gross weight (metric tons)	Chromium content (metric tons)	Value 2/ (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value 2/ (thousands)
High - carbon ferrochromium: 3/						
Albania	3,170	1,720	\$1,060	8,170	4,730	\$5,170
China	--	--	--	7,760	4,980	5,570
Croatia	--	--	--	9,430	5,880	6,110
Estonia	--	--	--	8,310	5,400	5,360
Finland	--	--	--	9,020	4,790	4,820
Germany	--	--	--	19	14	38
India	1,540	945	739	6,150	3,810	3,860
Japan	--	--	--	18	12	25
Kazakstan	4,530	2,950	2,140	77,600	46,800	45,600
Russia	--	--	--	17,500	9,370	13,200
South Africa	24,800	12,500	9,440	79,400	40,300	36,000
Turkey	--	--	--	30,500	18,900	21,400
United Kingdom	17	11	27	496	312	392
Zimbabwe	--	--	--	28,200	17,800	19,300
Total	34,000	18,100	13,400	283,000	163,000	167,000
Medium - carbon ferrochromium: 4/						
Philippines	--	--	--	36	23	47
Low - carbon ferrochromium: 5/						
China	1,180	744	1,690	7,720	5,060	11,900
Croatia	--	--	--	20	13	17
France	--	--	--	141	98	294
Germany	934	653	2,180	5,930	4,120	13,500
India	586	406	1,040	586	406	1,040
Japan	49	35	140	240	167	600
Kazakstan	--	--	--	152	106	257
Russia	522	334	821	12,000	7,890	17,900
South Africa	610	375	880	17,400	9,680	14,600
Turkey	301	210	622	802	578	1,660
United Kingdom	106	74	170	160	111	257
Zimbabwe	600	394	842	2,740	1,670	2,850
Total	4,880	3,230	8,380	48,000	29,900	64,900
Total, all grades:						
Albania	3,170	1,720	1,060	8,170	4,730	5,170
China	1,180	744	1,690	15,500	10,000	17,500
Croatia	--	--	--	9,450	5,900	6,130
Estonia	--	--	--	8,310	5,400	5,360
Finland	--	--	--	9,020	4,790	4,820
France	--	--	--	141	98	294
Germany	934	653	2,180	5,940	4,140	13,600
India	2,120	1,350	1,770	6,730	4,220	4,900
Japan	49	35	140	258	179	625
Kazakstan	4,530	2,950	2,140	77,700	46,900	45,800
Philippines	--	--	--	36	23	47
Russia	522	334	821	29,600	17,300	31,100
South Africa	25,400	12,900	10,300	96,800	50,000	50,500
Turkey	301	210	622	31,300	19,500	23,100
United Kingdom	123	85	196	657	423	649
Zimbabwe	600	394	842	30,900	19,500	22,200
Total	38,900	21,400	21,800	331,000	193,000	232,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

3/ Ferrochromium containing more than 4% carbon.

4/ Ferrochromium containing more than 3% but not more than 4% carbon.

5/ Ferrochromium containing not more than 3% carbon.

Source: Bureau of the Census.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN
AUGUST 1996, BY GRADE AND BY COUNTRY 1/

Country	August		January - August	
	Gross weight (metric tons)	Value 2/ (thousands)	Gross weight (metric tons)	Value 2/ (thousands)
Waste and scrap:				
Canada	--	--	1	\$7
China	--	--	17	103
Russia	--	--	(3/)	2
Sweden	--	--	16	69
Total	--	--	34	182
Other than waste and scrap:				
Australia	--	--	(3/)	2
China	186	\$1,060	967	5,650
France	129	1,030	1,030	8,070
Germany	54	427	150	1,450
Hong Kong	--	--	52	284
India	--	--	(3/)	11
Japan	10	449	214	4,040
Korea, Republic of	--	--	2	8
Netherlands	--	--	(3/)	2
Portugal	--	--	2	106
Russia	157	913	2,570	15,000
Spain	1	4	1	35
Switzerland	(3/)	1	4	16
Taiwan	1	13	5	72
United Kingdom	68	540	848	6,870
Total	606	4,430	5,850	41,600
Total, all grades:				
Australia	--	--	(3/)	7
Canada	--	--	1	2
China	186	1,060	984	5,750
France	129	1,030	1,030	8,070
Germany	54	427	150	1,450
Hong Kong	--	--	52	284
India	--	--	(3/)	11
Japan	10	449	214	4,040
Korea, Republic of	--	--	2	8
Netherlands	--	--	(3/)	2
Portugal	--	--	2	106
Russia	157	913	2,570	15,000
Spain	1	4	1	35
Sweden	--	--	16	69
Switzerland	(3/)	1	4	16
Taiwan	1	13	5	72
United Kingdom	68	540	848	6,870
Total	606	4,430	5,880	41,800

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise into the United States.

3/ Less than 1/2 unit.

Source: Bureau of the Census.